

WHAT IS CLAIMED IS:

1. A method of reducing the risk of microbial infection or of combating a microbial infection which is established first in the nasal mucosa area comprising:

5 the application of a nasal spray solution within the nose, said nasal spray solution comprising an aqueous solution having following components:

a) sodium hypochlorite in a concentration of about 0.5 ppmw to about 50,000 ppmw; and

10 optionally one or more of zinc gluconate at a concentration of about 1.7 ppmw to about 60,000 ppmw, and glycerine or propylene glycol at a concentration of about 0.01 wt % to about 5 wt %.

2. A method of reducing the risk of microbial infection or of combating a microbial infection which is established first in the nasal mucosa area comprising:

15 the application of a nasal spray solution within the nose, said nasal spray solution comprising an aqueous solution having following components:

a) chlorine in a concentration of about 0.4 ppmw to about 50,000 ppmw; and

20 optionally one or more of zinc gluconate at a concentration of about 1.7 ppmw to about 60,000 ppmw, and glycerine or propylene glycol at a concentration of about 0.01 wt % to about 5 wt %.

3. A method of reducing the risk of microbial infection or of combating a microbial infection which is established first in the nasal mucosa area comprising:

25 the application of a nasal spray solution within the nose, said nasal spray solution comprising an aqueous solution having following components:

a) bromine in a concentration of about 1 ppmw to about 75,000 ppmw; and

30 optionally one or more of zinc gluconate at a concentration of about 1.7 ppmw to about 60,000 ppmw, and glycerine or propylene glycol at a concentration of about 0.01 wt % to about 5 wt %.

4. A method of reducing the risk of microbial infection or of combating a microbial infection which is established first in the nasal mucosa area comprising:

5 the application of a nasal spray solution within the nose, said nasal spray solution comprising an aqueous solution having following components:

 a) sodium hypochlorite in a concentration of about 0.5 ppmw to about 50,000 ppmw;

 b) from about 0.1 ppmw to 160,000 ppmw of a salt selected from one or more of sodium chloride and sodium bromide; and

10 optionally one or more of zinc gluconate at a concentration of about 1.7 ppmw to about 60,000 ppmw, and glycerine or propylene glycol at a concentration of about 0.01 wt % to about 5 wt %.

5. A method of reducing the risk of microbial infection and also of combating an established microbial infection which is established first in the nasal mucosa area comprising the application of a nasal spray solution within the nose, said nasal spray solution comprising an aqueous solution having;

 a) from about 0.4 ppmw to about 50,000 ppmw of chlorine; and

20 b) from about 0.7 ppmw to 140,000 ppmw of a salt selected from one or more of sodium chloride or sodium bromide; and

 optionally one or more of zinc gluconate at a concentration of about 1.7 ppmw to about 60,000 ppmw, and glycerine or propylene glycol at a concentration of about 0.01 wt % to about 5 wt %.

25 6. A method of reducing the risk of microbial infection and of combating a microbial infection which is established first in the nasal mucosa area comprising the application of a nasal spray solution within the nose, said nasal spray solution comprising an aqueous solution having one or more of the following components:

 a) from about 1 ppmw to about 75,000 ppmw of bromine; and

30 b) from about 0.7 ppmw to 140,000 ppmw of a salt selected from one or more of sodium chloride or sodium bromide; and

optionally one or more of zinc gluconate at a concentration of about 1.7 ppmw to about 60,000 ppmw, and glycerine or propylene glycol at a concentration of about 0.01 wt % to about 5 wt %.

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7. A nasal spray solution comprising an aqueous solution having following components:

a) bromine in a concentration of about 1 ppmw to about 75,000 ppmw; and

optionally one or more of zinc gluconate at a concentration of about 1.7 ppmw to about 60,000 ppmw, and glycerine or propylene glycol at a concentration of about 0.01 wt % to about 5 wt %.

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8. The nasal spray solution as set forth in claim 7 wherein the bromine is present in a concentration of about 40 to about 8,000 ppmw.

15 9. The nasal spray solution as set forth in claim 8 wherein the bromine is present in a concentration of about 20 to about 1,000.

10. A nasal spray solution comprising an aqueous solution having following components:

a) sodium hypochlorite in a concentration of about 0.5 ppmw to about 50,000 ppmw;

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b) from about 0.1 ppmw to 160,000 ppmw of a salt selected from one or more of sodium chloride and sodium bromide; and

optionally one or more of zinc gluconate at a concentration of about 1.7 ppmw to about 60,000 ppmw, and glycerine or propylene glycol at a concentration of about 0.01 wt % to about 5 wt %.

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11. The nasal spray solution as set forth in claim 10 wherein component a) is present in a concentration of from about 5 to about 5,000 ppmw, and component b) is present in a concentration of about 140 to about 55,000 ppmw.

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12. The nasal spray solution as set forth in claim 11 wherein component a) is present in a concentration of from about 50 to about 500 ppmw, and component b) is present in a concentration of about 1,400 to about 28,000 ppmw.

5 13. A nasal spray solution comprising an aqueous solution having the following components;

a) from about 0.4 ppmw to about 50,000 ppmw of chlorine; and

b) from about 0.7 ppmw to 140,000 ppmw of a salt selected from one or more of sodium chloride or sodium bromide; and

10 optionally one or more of zinc gluconate at a concentration of about 1.7 ppmw to about 60,000 ppmw, and glycerine or propylene glycol at a concentration of about 0.01 wt % to about 5 wt %.

14. The nasal spray solution as set forth in claim 13 wherein component a) is present in a
15 concentration of from about 2 to about 5,000 ppmw, and component b) is present in a concentration of about 140 to about 55,000 ppmw.

15. The nasal spray solution as set forth in claim 14 wherein component a) is present in a concentration of from about 10 to about 500 ppmw, and component b) is present in a
20 concentration of about 1,400 to about 28,000 ppmw.

16. A nasal spray solution comprising an aqueous solution having the following components:

a) from about 1 ppmw to about 75,000 ppmw of bromine; and

25 b) from about 0.7 ppmw to 140,000 ppmw of a salt selected from one or more of sodium chloride or sodium bromide; and

optionally one or more of zinc gluconate at a concentration of about 1.7 ppmw to about 60,000 ppmw, and glycerine or propylene glycol at a concentration of about 0.01 wt % to about 5 wt %.

17. The nasal spray solution as set forth in claim 16 wherein component a) is present in a concentration of from about 40 to about 8,000 ppmw, and component b) is present in a concentration of about 140 to about 55,000 ppmw.

- 5 18. The nasal spray solution as set forth in claim 17 wherein component a) is present in a concentration of from about 20 to about 1,000 ppmw, and component b) is present in a concentration of about 1,400 to about 28,000 ppmw.